

CLAIMS

1. A method for determining a context for coding, comprising the steps of:

(A) generating a plurality of results by examining a prediction mode for each of a plurality of neighbor blocks to a
5 current block in a bitstream for digital video, wherein at least one of said neighbor blocks is subpartitioned;

(B) generating a plurality of first variables based on said results; and

(C) coding said bitstream using a binary arithmetic
10 coding based on a particular context among a plurality of context determined from said first variables.

2. The method according to claim 1, wherein step (C) comprises the sub-step of:

generating a second variable based on a sum of two of said first variables.

3. The method according to claim 2, wherein step (C) further comprises the sub-step of:

03-0975
1496.00355

determining said particular context from said second variable.

4. The method according to claim 1, wherein step (B) comprises the sub-step of:

independently setting each of said first variables to a non-zero condition in response to said results indicating that a
5 corresponding one of said prediction modes is for a same list applicable to a syntax element being coded.

5. The method according to claim 1, wherein step (B) comprises the sub-step of:

independently setting each of said first variables to a zero condition in response to said results indicating that a
5 corresponding one of said prediction modes is one of a direct mode and a skip mode.

6. The method according to claim 1, wherein step (B) comprises the sub-step of:

independently setting each of said first variables to a zero condition in response to said results indicating that a

03-0975
1496.00355

5 corresponding one of said prediction modes does not uses a pixel prediction from a same list applicable to a syntax element being coded.

7. The method according to claim 1, wherein each of said first variables comprise a conditioning term flag that describes a functional relationship between a spatially neighboring symbol and a value of said first variables.

8. The method according to claim 1, wherein each of said first variables comprises an absolute value motion vector difference component.

9. The method according to claim 1, wherein said coding comprises context adaptive binary arithmetic decoding.

10. The method according to claim 1, wherein said coding comprises context adaptive binary arithmetic encoding.

03-0975
1496.00355

11. The method according to claim 1, wherein step (B) comprises the sub-steps of:

independently setting each of said first variables to a zero condition in response to said results indicating that a corresponding one of said prediction modes is at least one of (i) a skip mode, (ii) a direct mode and (iii) does not uses a pixel prediction from a same list applicable to a syntax element being coded; and

independently setting each of said first variables to a non-zero condition in response to said results indicating that said corresponding one of said prediction modes uses said pixel prediction from said same list applicable to said syntax element being coded, and

wherein step (C) comprises the sub-steps of:

generating a second variable based on a sum of two of said first variables; and

determining said particular context from said second variable.

12. A system comprising:

a first circuit configured to (i) generate a plurality of results by examining a prediction mode for each of a plurality of neighbor blocks to a current block in a bitstream for digital
5 video, wherein at least one of said neighbor blocks is subpartitioned and (ii) generate a plurality of first variables based on said results; and

a second circuit configured to code said bitstream using a binary arithmetic coding based on a particular context among a
10 plurality of context determined from said first variables.

13. The system according to claim 12, wherein said first circuit is further configured to generate a second variable based on a sum of two of said first variables.

14. The system according to claim 13, wherein said second circuit is further configured to determine said particular context from said second variable.

03-0975
1496.00355

15. The system according to claim 12, wherein said first circuit is further configured to independently set each of said first variables to a non-zero condition in response to said results indicating that a corresponding one of said prediction modes is for
5 a same list applicable to a syntax element being coded.

16. The system according to claim 12, wherein said first circuit is further configured to independently set each of said first variables to a zero condition in response to said results indicating that a corresponding one of said prediction modes does
5 not uses a pixel prediction from a same list applicable to a syntax element being coded.

17. The system according to claim 12, wherein said neighbor blocks comprise a first neighbor block left of said current block and a second neighbor block above said current block.

18. The system according to claim 12, wherein said first circuit comprises a context modeling circuit.

03-0975
1496.00355

19. The system according to claim 12, wherein said second circuit comprises one of a context adaptive binary arithmetic decoder and a context adaptive binary arithmetic encoder.

20. A system comprising:

means for (i) generating a plurality of results by examining a prediction mode for each of a plurality of neighbor blocks to a current block in a bitstream for digital video, wherein
5 at least one of said neighbor blocks is subpartitioned and (ii) generating a plurality of first variables based on said results; and

means for coding said bitstream using a binary arithmetic coding based on a particular context among a plurality of context
10 determined from said first variables.